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Amateur Radio

JOURNAL OF
THE WIRELESS
INSTITUTE OF
AUSTRALIA

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EDITORIAL



The story has been heard many times dealing with a situation where in the largest diesel engine in the world had come to a stop, tying up a large factory. Expert engineers with all kinds of paraphernalia were called in, but they all failed to get the huge machine working again. Finally the frantic management heard of an obscure expert living across the other side of the continent. They called him up, offered him anything so long as he could help them start their engine, and even sent an aeroplane to bring him over. When he arrived, an inconspicuous little man in overalls, he was effusively greeted by the officials of the factory and escorted to the location of the engine. The engineer of the plant described the symptoms to the little man, to which he listened attentively before asking, "Has anyone got a ballpeen hammer?" The hammer was produced and the little man climbed quickly up the various ladders leading to the top of the mammoth engine and disappeared into the top section of its structure. He was heard to strike a few rapid but powerful blows with the hammer. Then he re-appeared, climbed down the ladders and said, "Now try her." To the management's intense relief the great machine started instantly and ran perfectly. The officials wrung the little man's hand, praised his ability, and told him to send in his bill.

When the bill arrived a week or two later, it was for £1,000, which caused a mild explosion on the part of the financial manager of the factory. His previous worries and troubles with the engine quite forgotten. He called the little man up on the phone, told him he was a racketeer, that the bill was outrageous, that he would not accept the account unitemised, that his Company's policy was for any account above

£100 to be itemised and he defied the little man to itemise this one. "Why," he said, "all you did was to go up there and hammer and that was not worth more than £1. If you can itemise that bill to amount to £1,000, I'll pay it; otherwise I won't!"

So the expert itemised his bill, and this is the way it read: For hammering, £1, for knowing where to hammer, £999, total £1,000.

History has it that the little man received payment. You have probably heard the story before, for it has been related many times all over the world. But the point of the story is that what made him an expert was that he knew precisely where to hammer. That took some knowing. That's what set him apart from the pseudo-experts who tried and failed. He didn't flounder nor did he try things blindly. He understood engines and saw clearly that the trouble could only be one thing so he went right there and fixed it immediately. That ability was the hallmark of the expert—knowing where to hammer.

It's the same way in radio. Most of us Amateurs don't know how to locate troubles quickly, nor how to engineer our apparatus properly in the first place—because we haven't acquired a really sound practical and theoretical understanding of radio. Or those of us who perhaps once did understand basic theory and were capable of sound engineering practice have not bothered to revise our knowledge because we have been too busy operating. We've always promised ourselves that some day we'd take time off to start again at the beginning and really digest that basic theory. Perhaps it's a good time to start if we want to keep up with our rapidly expanding scientific hobby. Time and tide waits for no man!

—FEDERAL EXECUTIVE

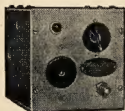
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Central 4311

A Simple Transmitter For The 50 Mc. Band

BY Q. N. PORTER,* VK3IM

The transmitter to be described here is one that has been successfully used by the writer for about two years and is suitable for power inputs of between 10 and 25 watts, depending on the power supply and modulation equipment available.

As will be seen from the circuit diagram, the transmitter is a four-stage crystal controlled job and uses gear that is readily procurable, the tubes all being types obtainable very cheaply from disposals.

The first stage is an EF50 triode c.o. using a crystal in the range 6.25 to 6.75 Mc., and doubling in the plate circuit to 12.5 Mc. The second stage uses another EF50 as a doubler from 12.5 to 25 Mc., and this drives a 6V8GT as a doubler from 25 to 50 Mc., which in turn drives an RK34 dual v.h.f. triode, or a pair of 7193s, as a straight final on 50 Mc.

The construction of the first three stages of the rig is quite straightforward and no difficulties should be encountered here. Of course all leads carrying r.f. should be kept as short as possible, and it is advisable to use mica condensers as r.f. by-passes, particularly on the 25 and 50 Mc. stages.

The coils for the c.o. and first doubler stages are wound with 18 s.w.g. wire on $\frac{1}{2}$ " diameter formers and this wire is heavy enough to allow the coils to be wired across their tuning condensers without any other support.

The plate coil of the 6V8GT doubler is air wound using 14 s.w.g. wire and is also connected directly across its tuning condenser.

If an RK34 is used as a final, it should be mounted horizontally, a small right angle bracket being made from aluminium to hold the socket. The grid coil is then air wound and connected between the appropriate socket pins, then the 3 to 30 pF. trimmer is wired in parallel with this coil using heavy wires to hold it in position; this form of construction proves quite satisfactory and, of course, gives the lowest losses.

The grid coil is link coupled to the plate coil of the 6V8GT doubler, and the links consist in the writer's case of two turns of Nylax insulated wire at each end of a 10 inch length of 300 ohm ribbon. The spacing between the turns of the doubler plate and p.a. grid coil is such that the links are gripped quite firmly in each coil and no further support is required. If the constructor is fussy, insulating blocks can be built up to hold swinging links at each end of the length of 300 ohm line.

The plate tuned circuit of the RK34 consists of a split stator condenser of approximately 20 pF. per section capacity, which was made by split statorising a 50 pF. midget condenser. The plate spacing was not increased, and no trouble with arcing has been experienced at up to 25 watts input, so any similar home-made condenser, or one of the Eddystone 25 pF. per section split stators should prove quite satisfactory

Judging by the large number of cross-town QSOs that take place on the 7 and 14 Mc. bands, often under conditions of heavy interference and/or static, many of the active Amateurs are ignorant of the fact that we have a band 4 Mc. wide at 50 Mc., which is ideal for local work up to 50 miles or so, at any time, and with the better located stations having regular contacts at distances in excess of 100 miles.

There is also the added attraction of fairly regular DX contacts to various parts of VK and ZL over the summer months and occasionally at other times during the year.

All this makes six metres quite an ideal band and, added to this, the gear used is quite simple, being no more difficult to construct and get going than that for 28 Mc.

here. Once again the coil is air wound with 14 s.w.g. wire, and connected between the fixed plates of the condenser. The plate caps of the tube are connected to the condenser by clips and short leads (about $\frac{1}{4}$ inch long).

The neutralising condensers used are the small 2.5 pF. (max.) concentric cylinder Eddystone units, and are mounted on small aluminium brackets about half way along the length of the tube. Due to the length of the RK34, the leads to the neutralising condensers are necessarily rather long, but this seems to have no adverse effect on the performance.

If a pair of 7193s is to be used as a final, the construction is necessarily somewhat different, as the 7193s have the grid and plate both connected to top caps. The tubes should be mounted vertically with the bases fairly close together, say $\frac{1}{2}$ " between the two socket holes in the chassis. The sockets should be oriented so that the grid and plate caps of the two tubes are the same dis-

tance apart. This is done so the grid circuit may be mounted on one side of the tubes and the plate circuit on the other.

It is not wise to mount condensers, coils, etc., directly onto the grid clips as the strain may possibly break the glass, so the grid coil and condenser should be mounted on a piece of insulating material held near the grid clips by a bracket bolted to the chassis. The plate circuit is the same as in the case of the RK34. The neutralising condensers are mounted beside the tubes and, of course shorter leads are possible than with the RK34 final. However a difficulty arises if the Eddystone condensers used with the RK34 are used with the 7193s, as their grid to plate capacitance is 3.2 pF., while the maximum capacity of the condensers is 2.5 pF. In the writer's case this was overcome by connecting small condensers made from $\frac{1}{2}$ " by $\frac{1}{2}$ " copper tabs $\frac{1}{4}$ " apart across the contacts of the neutralising condensers. This adds another 1 pF. or so and allows neutralisation to be carried out. Of course a less clumsy method is to use a different type of condenser which will give the correct capacity.

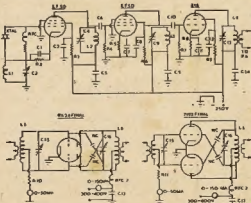
ADJUSTMENTS

In the writer's case the only circuits which are permanently metered are the grid and plate of the final. Of course this may be varied and metering can be arranged for all stages if so desired; in any case, the plate and grid currents of the first three stages should be checked when the transmitter is first put in to operation.

At first h.t. should be applied only to the c.o., its plate and screen current should be approx. 12 Ma. with a slight dip at resonance. There should be enough r.f. present to light up a 6 volt 40 Ma. globe connected to a link to full brilliance and 1.5 to 2 Ma. grid current should flow through the next stage grid resistor. If the same size coils and condensers are used as in the writer's case, resonance should occur with the con-

PARTS LIST

- R1, R4—50,000 ohms, $\frac{1}{2}$ watt.
- R2, R5—500 ohms, $\frac{1}{2}$ watt.
- R3, R6—10,000 ohms, $\frac{1}{2}$ watt.
- R7—100,000 ohms, $\frac{1}{2}$ watt.
- R8—300 ohms, $\frac{1}{2}$ watt.
- R9, R11—10,000 ohms, 1 watt.
- R10—2,500 ohms, 2 watts.
- C1, C3, C5, C7, C9—0.01 μ F.
- C2—100 pF. midget variable.
- C4—50 pF. midget variable.
- C6, C10—50 pF. mica.
- C8, C13, C15—15 pF. mid. var.
- C11, C12, C14—0.001 μ F. mica.
- C15—3 to 30 pF. trimmer.
- C16—20 or 25 pF. per section split stator.
- N.C.—Neutralising cond. see text.
- RFC1—2.5 mH. R.F. choke.
- RFC2—30 turns 26 s.w.g. on $\frac{1}{2}$ " former.



*51 Pakington Street, Kew, Victoria.

denser approximately one-quarter in mesh.

The second EF50 should now have its h.t. applied and should be checked in the same manner. Its plate and screen current should be the same as before and the grid current flowing through the grid resistor of the 6V6GT should be approximately 1.5 Ma. In this case the writer's condenser is also about one-quarter in mesh.

The h.t. should be now applied to the 6V6GT, plate current here will be 40 to 50 Ma. dipping to about 25 Ma. which occurs with the condenser about one-third in mesh. There will be a large amount of r.f. present so be careful not to burn out the 40 Ma. bulb if it is still being used for checking.

If the constructor has struck no troubles, the exciter should now be working well and giving out plenty of r.f. on 50 Mc., but if any stage does not tune it may be necessary to remove or add on a turn or two. If a wide range absorption wave meter is available it is helpful in making sure a stage is not tripling when it should be doubling. It is a good idea in any case to make up an absorption meter for 50 Mc. for, if the last stage is on frequency you can be pretty sure that the right harmonics have been selected in the previous ones. Any local 50 Mc. operator will be ready to help in calibrating a wave meter, or if you live in the country it can be posted down to the V.H.F. Group in your State for calibration.

With the exciter operating satisfactorily, the links should be inserted into the 6V6GT plate coil and final grid coil and the final grid circuit tuned for maximum grid current. If the RK34 is being used this current should be approximately 20 Ma. and with the 7193s 8 to 10 Ma. Do not be frightened by these seemingly high currents, they are quite easily obtained and no difficulty should be encountered here. Some adjustment to the links may be necessary and the positions for best grid current are easily determined by experiment.

When the grid current is up to the correct value, the final should be neutralised by adjusting the condensers until there is no change in grid current when the plate tank is tuned through resonance, no plate voltage is on the p.a. at this stage of course. Once this has been achieved, voltage can be applied to the p.a.; the off-resonance current will be 80 to 120 Ma., depending whether 7193s or an RK34 is being used, and should dip to a value between 10 and 20 Ma. on resonance. This is assuming a plate voltage of about 300. The 7193s should not be loaded by the antenna to more than 80 Ma. and the RK34 to more than 80 Ma. The plate voltage can be higher than 300 and up to 400 has been used with both finals without

causing the tubes any distress. This will allow inputs of up to 24 watts with the 7193s, and 32 watts with the RK34 to be used.

ALTERNATIVE TUBES

RL7s can be used in place of the EF50s to give identical results, although it must be remembered that the socket connections are different, the RL7 having several connections to the cathode.

1852s, 6SH7s, and even 6SK7s will probably give just as good results as the EF50s, although they have not been tried by the writer.

In place of 7193s a pair of CV6s or HY615s can be used, but they should not be used with a plate voltage of above 300 and should not be loaded to more than 15 watts input.

USE OF 8 Mc. CRYSTALS

If the only crystals available are in the 8.333 to 9 Mc. region the best plan is to omit the EF50 doubler and use the tripler as a tripler, giving output on 25 Mc. and then doubling in the 6V6GT as before.

COIL DETAILS

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- L2—16 turns 18 s.w.g. enamel on 1" diam. former, spaced diameter of wire.
- L3—Same as L2, but 8 turns only.
- L4—4½ turns 14 s.w.g., 1" diam, 1" long, air wound.
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- L6—9 turns 14 s.w.g., 1" diam, 1½" long, air wound.

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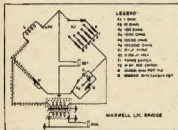
Most Amateurs, at one time or another, have been posed the problem in the title. Few of us have access to means of measuring inductance, and even more rarely is that means in the shack. The filters in a projected s.s.c. transmitter required several accurate inductors and capacitors. Means of measuring capacitance was available, but the inductors were beyond me.

Investigation of the possibilities of a bridge led to the decision to make one. The total cost, when finished, with all new parts, was less than £3. Since using it for the filters, it has been handy in a dozen ways. For example, a set of 12 coils, for a tuned v.t.v.m.—30 Kc. to 30 Mc. was made up, using the bridge. After assembly, only two needed further trimming, and these were existing coils put in unmodified, on the principle that they might be "near enough." The bridge saved hours on this job alone.

The accessories needed are a source of tone of about 1,000 cycles, and headphones. It will measure Q from 0 to 60 as accurately as you know your frequency, and L as accurately as your standard capacitors and multipliers. Its range is—

- 100 henries to 100 uH.—highly accurate.
- 100 uH. to 0.1 uH.—less accurately.

With the aid of an amplifier for your headphones, this latter range will be as accurate as the other, as the sensitivity of the bridge falls off at very low inductances. To give an example of its capabilities I have measured the inductance of a loop of wire 4" long.



The circuit needs no comment, but some comment on components may help.

COMPONENTS AND CALIBRATION

Multiplier Potentiometer (M).—A 10,000 ohm Marquis MDC7 wire wound pot. was found most suitable, and the scale can be precalibrated 0-10 with an ohmmeter, such that:—

- Resistance = 100 ohms, dial reads 0.1
- 1000 " " " " 1.0
- 2000 " " " " 2.0
- 10,000 " " " " 10.0

The dial is direct drive, being a transcription disc cut to 6" diameter and

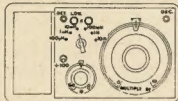
* c/o. Station 5WA, Wagin, Western Aus.

fixed to an old 4" Emmco knob. Calibrated in white ink with a "Stylon" cursor.

Range Switch (R).—These resistors are 1, 10, 100, etc. ohms, carbon or wire wound, and the switch is calibrated so that:—

- 1 ohm = 100 uH.
- 10 " = 1 mH.
- 100 " = 10 mH.
- 1,000 " = 100 mH.
- 10,000 " = 1 H.
- 100,000 " = 10 H.

These are independent of frequency as L = CRM (Henries, Farads, Ohms) so that the inductance reading of the bridge is independent of frequency.



Q Potentiometer (Rq).—This is a standard 0.1 meg. carbon pot, logarithmic. This helps to spread the scale. It is calibrated at 1,000 cycles, such that:—

Q	R (ohms)	Q	R (ohms)
0.1	159	4.0	6370
0.2	318	5.0	7960
0.3	477	6.0	9550
0.4	637	7.0	11200
0.5	796	8.0	12700
0.6	955	9.0	14300
0.7	1120	10	15900
0.8	1270	20	31800
0.9	1430	30	47700
1.0	1590	40	63700
2.0	3180	50	79600
3.0	4770	60	95500

These readings are frequency dependent, as

$$Q = 2\pi fCRq$$

where C is the standard capacitor, and Rq is the Q dial pot. resistance.

For frequencies other than 1,000 cycles, multiply Q by frequency in Kc. The pot. can be calibrated by ohmmeter as was the range pot.

Capacitor Standards (C).—The main standard is a 0.1 uF, paper capacitor, and on the + 100 position, a 0.001 uF. mica is switched in its place.

N.B.—When on + 100, divide all readings (Q as well) by 100. This reduces the Q range to 0-0.6, but at 1,000 cycles, and inductances less than 100 uH. the apparent Q, taking all bridge losses into account, is always less than unity.

Bridge Transformer.—For rough measurements no transformer is necessary, as long as the oscillator output is above earth, but the null is broad. Depending on the output characteristics of your source of tone, fairly large errors can be caused.

An old audio transformer is better than none, but the multiple shielded bridge transformer to be described is surprisingly easy to make, and almost completely eliminates errors, and makes the null sharp and definite.

Core.—Use that from an old audio transformer, about 2" x 1" leg section, but with a reasonably large window area. Usually speaker transformers have too small a window.

Primary.—2400 turns of 36 to 37 B. & S. enamel tapped at 600 and 1200 turns if desired. I have found that using the 2400 turn primary to 600 turn secondary was very satisfactory, but for oscillators of lower output impedance the lower ratios may be more satisfactory.

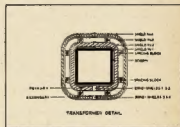
Secondary.—600 turns of 30 to 34 B. & S. enamel.

Shielding.—Four electrostatic shields of thousand shim brass are fitted as will be described.

Construction.—Make a suitable bobbin for the core, and put in place the first shield, lapped over 1" with insulation between the lapped ends. Solder a strip of 1" wide shim to the shield on the opposite side to the lap, at one edge, and bring up and clamp over side wall of bobbin for the time being.

Wind on primary with taps if required. Insulate, and put on second shield with insulated lap as before, the lap being on the same side of the bobbin core. Connect these two shields together with the 1" strip brass, and bring out an insulated lead from the shields.

Wind a layer of insulation—Empire cloth—over the shielded primary assembly. Cut eight matches to the length between bobbin cheeks, and fix in position as spacers with adhesive tape as shown in the sketch. Place the third shield in position as for the first, remembering that insulated tap, solder shim strip as before, wind on secondary and insulate. Put on the fourth shield as for the second, bond to the third and bring out an insulated lead.



Insulate the outside of the whole assembly, and fit the core with lapped joints (no air gap). Fit into a metal can, steel preferred, and provide an earth connection to the can. Connect as shown in the circuit diagram; primary shield, one leg of input and can to earth, secondary shield to be connected to shielding of output lead as far as the "high" unknown terminal and the M potentiometer, and connected to the other lead to range switch and standards. Insulate this shield and do not earth. A transformer built as above is good from 100 cycles up, showing a loss of 2.7 db. at 100 cycles and 0.2 at 12 Kc.

(Continued on Page 6)

RC Filter for Speech Amplifier Clipper

BY G. PATERSON,* VK2AHJ

Here is a circuit with several applications—the one adopted by the writer being as a low pass filter following an amplifier clipper stage in a speech amplifier.

The circuit is known as a bridged T network and gives high attenuation at one frequency. Used in conjunction with a single section RC filter which gives progressive attenuation with increase in frequency, the result is quite sharp cut off and high attenuation above any chosen frequency.

The frequency at which the attenuation is highest is given by the formula:

$$F = \frac{1}{2\pi RC}$$

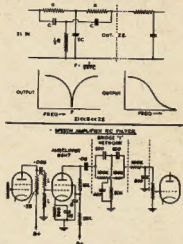
where F is in cycles, R is in ohms, and C is in farads.

It is important that the input impedance be small compared to R and that R be small compared to the terminal impedance. The accuracy of the components is not critical so that stock parts can be used with complete success. The writer found that when F is 7 Kc. quite good quality resulted, but depending on the microphone and speech characteristic, a much lower frequency could be chosen.

This circuit is much cheaper and easier to construct than a low pass LC

filter and gives quite good results with simple parts.

The actual circuit used by the writer is shown. The 6SH7 is a conventional amplifier clipper stage. The value of R was chosen arbitrarily to suit the conditions mentioned previously.



* 212 Pine Street, Randwick, N.S.W.

WHAT IS ITS INDUCTANCE?

(Continued from Page 5)

Mechanical.—The bridge here is built into a wooden box 14½" x 9½" x 6" deep overall with lld. The bridge compartment is completely lined with metal, as is the underside of the masonite panel. The sketch will be self-explanatory as to layout, but this is quite unimportant at 1,000 cycles.

For accuracy at very low inductances, leads from the terminals should be reasonably short. My bridge in the +100 position has a zero error of 0.8 uH. which can, of course, be deducted from the answer, without much error.

OPERATION

Connect unknown inductance to terminals, with the earthy end of the coil (if any) to the low terminal. Connect tone source to osc. jack at a level that gives from 0.1 to 1.0 volt across the bridge. Plug headphones into the det. jack. Set the range switch to the weakest signal, and rotate M dial for a broad null. Using the Q dial and the M dial progressively improve the null till there is no signal. There may be some second harmonic coming through, but it is easy to ignore, and balance out the fundamental. The setting of the range switch and M will give the inductance, and Q comes from the Q dial.

When using the +100 position the tone will be very faint, and a quiet room will be needed for a null to be found. But you can use an amplifier if it is

worth while. After a few tries, you can obtain a balance in a few seconds.

By using a visual detector—magic eye—the bridge would be even more useful at higher frequencies, and switching of the arms and standards of the bridge would extend it to read capacitance and resistance also, if you so wished.

N.B.—When measuring iron cored inductances without air gap, the inductance is a measure of the voltage across it, and the error may be high. The Q also may be very low. Here you are dealing with initial permeability, which is very variable. So if you are making iron cored inductances where accuracy is required, make them with an air gap. Then your figures will mean something.

ACCURATE FREQUENCY TRANSMISSIONS FROM VK3WI

The next Accurate Frequency Transmission will take place on Thursday evening, 24th May, 1951, on the 3.5 Mc. band. Details of the operating procedure and times of operation will be found on page 5 of the February, 1951, issue of this magazine.

Problems With 807 and 813 Tubes

Running a fair sized transmitting station in the tropics is no picnic, and all sorts of peculiar things, some most unexpectedly at times, are encountered. However, one thing which may be tropical, but I doubt it, is the trouble we have been having with parasites in 807 and 813 tubes. Quite a lot of trouble has been caused by the parasites which suddenly appear.

One transmitter, which operates a few kilocycles outside the low frequency end of the 14 Mc. band, started me on the herry hunt, as it used to develop parasitic clix which covered the 14 Mc. band. Quite often, by the way, the key clicks were found to be emanating from Ham stations and not the local transmitters. The particular transmitter uses 807 as oscillator, mostly on crystal, and push-pull parallel 813s in the final.

The findings are passed on to Hams who use these tubes, as a matter of interest.

On any frequency at which it may be operating, the oscillator tube will suddenly develop parasites. No change occurs in meter readings, so you get no indication from that source, that the parasites are there. One particular night the parasitic decided to pick the frequency on which the N.S.W. Emergency Flood Network was operating and it was no mean signal that was radiated. Nowadays, all we do if a parasitic signal is reported, is change the oscillator (807) and the trouble no longer exists.

The parasitic clix were not so easy to track down. Retuning and checking of the transmitter had no effect. The clix were eventually traced to the 813 p.a. tubes themselves. Now all we do if parasitic clix appear is to change the four 813 tubes and the clix immediately go. Time is not available to test each 813 turn by turn, so the four are pulled out and all is well. One particular period of the herry hunt, it was found that the clix would only clear up for about 14 days. This was overcome by putting another transmitter of the same type on the 13 Mc. frequency and now we are experiencing longer periods of freedom. Once again, meter readings gave no indication of trouble.

The moral is, if you use these tubes, be prepared for parasites and parasitic clix to develop without any circuit changes, and take heed if somebody tells you they are there. My mind goes back not so long ago to a QSO with an old pal of mine I used to work frequently, VEGA W. One day I told him he had parasitic clix. He couldn't see it as he took pride in his signals. Anyhow, two days later he called me with a word of thanks, saying he had checked and found an 807 buffer had developed parasites. He did not "stick his head in the sand" and say "it can't be me." It is possible for a new tube to show this tendency.

—VK4QL

DX NOTES BY VK4CGL

Reading "Amateur Radio" for March, I could not help but notice the number of members who try to gather some copy for the magazine each month. They were complaining about the lack of material, so they apparently are in the same boat as I am. Nobody is very keen to help. Once again most of this month's notes are from my own observations.

Was all set for a gloomy picture of the bands this month as far as North Queensland was concerned, but, quite without warning, the higher frequency bands turned it on for Easter. A survey of the bands for the month shows—

3.5 Mc.: No clues and no reports. Static too severe. 7 Mc.: This band has fallen right away up here compared to previous months. Even North Americans are "out" in the evenings, and very little in the mornings, only the odd South African getting through. Very few days produced any good openings, but the odd good one turned up at times. ST7C was worked, and ZNS hooked EA6AF, but he was on the way out then, and nothing more heard. The outstanding 7 Mc. for the month was VQ3CF, who comes through every day, and has given many a VK a QSO. Is not using high power.

For those who do not know it, he is using a 7154 aircraft transmitter, complete with its characteristic note. His antenna is a 60' inverted L with 300 ft. top. He is also at the foot of a mountain, which may have some effect on his consistent signal, but it does not prevent him from being fairly consistently active. The contact with ST7C was very satisfactory from my point of view, as it gave me my 39th one. Southern stations were heard working Europeans at times when not a sign of them here. Prefiles for the month on this band were: ZL, LIA, ZC, ON, SM, DL, HB, VU, VSI, VBS, VST, UA, UB, UF, ZS, ZST, VU, ZE, G, GW, FOS, EAF, PA, AR, RT, FFR, II.

14 Mc.: For the greater part of the month this band was hopeless in the late afternoon.

early evening and from 8 a.m. What transpired between 11 p.m. and 8 a.m. I don't know, except for the B.R.U. Contest week-end, when it was poor. Fortunately, the band opened the Eastern side of the contest, and some good DX. On one morning CR5AC was worked again, but he was the only DX there. One other opening occurred on 4EL, but it was not clear where the band was full of Europeans. Quite a change. During Easter the band was very good in the late afternoon, and Easter Sunday appeared to be the peak, although I was not there. The other days, on Easter Friday, ZDAB was worked at 6700 G.M.T., when he said he had just come from 7 Mc., where he worked ZL6G. Knowing the difficulty ZLs have with Africa, this, I think, is an outstanding effort. On the Sunday, FQ4A and ZF4A were worked, on Monday ZS3K, and the Tuesday GCFMV, but the opening had "had it" by the Tuesday. The month's new ones brought my total to 148. A change has occurred to this band over the month, as the Europeans have started to appear again in the late afternoon, in small numbers. The 14th March was a complete blackout.

Listings for the month on 14 Mc. are: CR5AC, VYAB, ZS4AK, EABP, EASAF, EABD, ZS3M, FZ1AG, ZD4AE, ZD4E, ZD4F, FQ4A, FQ4B, FQ4C, FQ4D, FQ4E, FQ4F, FQ4G, FQ4H, FQ4I, FQ4J, FQ4K, FQ4L, FQ4M, FQ4N, FQ4O, FQ4P, FQ4Q, FQ4R, FQ4S, FQ4T, FQ4U, FQ4V, FQ4W, FQ4X, FQ4Y, FQ4Z, FQ4A, FQ4B, FQ4C, FQ4D, FQ4E, FQ4F, FQ4G, FQ4H, FQ4I, FQ4J, FQ4K, FQ4L, FQ4M, FQ4N, FQ4O, FQ4P, FQ4Q, FQ4R, FQ4S, FQ4T, FQ4U, FQ4V, FQ4W, FQ4X, FQ4Y, FQ4Z.

28 Mc.: This band has been very erratic. In the B.R.U. Contest, it was impossible to work a ZL yet the next week-end there were plenty there at good strength. I don't know how this band behaved during the Easter week-end, as on Easter Monday round 1030 G.M.T. some strong European signals were heard, and during a QSO with DL4DP, he said Easter Friday had been good on this band. We have not been easy to work, and what signals did come through were very unstable. YSIO and XE1E were two there. 4EL says he completed a W.A.S. on this band for Easter so the DX was around. On Easter Monday, a KH5 and F9 were heard on the band at the same time.

On the 28th, during a QSO with VESAW, he said a display of the Northern Aurora was on, and some peculiar effects took place on the bands during the next few hours. It was useless. 28 Mc. had some Europeans which suddenly disappeared; on 14 Mc. the North American were coming through for the first time in any number. The following morning round 2900 G.M.T., the band was full of Europeans. This is quite a change to listening to a dead band round this time.

ZL1B's score in the B.R.U. Contest was 2084 for 244 contacts. Had a crack at the Junior myself and had 150 contacts for 1588 points. Conditions were erratic and it looked as though I would go through the test without a G contact, but suddenly they appeared on 14 Mc. The conditions were erratic and it looked as though I would go through the test without a G contact, but suddenly they appeared on 14 Mc. The conditions were erratic and it looked as though I would go through the test without a G contact, but suddenly they appeared on 14 Mc.

VK9QJ has worked 96 countries, but had the misfortune to get some of his confirmations burned. Had luck, and he has been very successful in bringing some info from ZL1QW. He contacted the HC3 on 7 Mc. just before they closed down, and sent him a QSL by air mail. On 22nd May, ZL1QW received from the ZL Bureau, the cards for the locals, they having been received in Wellington on Monday. So I apparently miss out on yet another needed QSL. ZL1CQ also bears the fact of needed QSLs not arriving, he being in need of ones from TAJAA and FRAAD, which have been received here.

Eric, BERS16, helps me out with some dope on what has happened on the VLF side. Eric means the fact that he has been unable to hear CR5AC. That seems general in VK3 from what I hear. Others seem to have heard him. I have been unable to dig 'em out. Eric did some listening in the B.R.U. Contest, and logged 554 stations. Has been hearing the DX on 7 Mc. to the tune of 2000. VSTPM, PARZ, VPKBV, FNBVB, HZ1PC, ZSTJ, G1F6K, GQSDZ, MPRBV, VPCD1, and on 14 Mc. VPSD, VPSU, ZC1T, VPKBV, VPCD1, and on 14 Mc. APZ, VPSGA. He has received a QSL from YN2C.

WJ that about winds the month up. Noted your comments with interest, 7BK, in March issue. What about dropping me a note of just what you do hear down there? It would help a good deal.

● The thought for the month. "Don't be a dog in the manger." When you miss out on a rare DX station, don't start a CQ on his frequency. Give the bloke a break who did get him.

VK4CGL REPORTS THE FOLLOWING ACTIVITY ON 7 Mc.

Conditions continue to be very patchy and night time signals are mostly weak with very little DX apart from ZK, FK, and a few others. However, YSIO in San Salvador popped up on the 23rd of March at 8.5 p.m. on a frequency of about 7030 Kc. He gave his QTH as Box 329, San Salvador City. He was also heard working VK2NS and VQ3DY.

The writer has been chasing W.A.S. on 7 Mc. for the past four years and after a long wait Vermont, Rhode Island and New Hampshire were worked within a week leaving three more States to go, viz., Utah, Wyoming and North Dakota—the States are hard enough to hear. Morning listening on the 7 Mc. band resulted in a number of QSOs, but even over there the band reveals a number of "regulars" in HB9U, FRIE, SMSWI, DL1AA. New ones worked were ZS3K, ZS3M (Macedonia 7033 Kc.), FARA and VBSOF. Others were H11X, DL3JV (last VK 7 Mc. QSO), whilst WILB, WIDKF and WS0BU were worked the long way around and were audible until 7.30 a.m. S.A. time. No South Americans heard this year, but with the Central Americans breaking through, they could pop up any time.

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PHONE			
Call	No. Ctr.	Call	No. Ctr.
VK4JD	1 152	VK4P	8 114
VK4RE	10 154	VK4AW	14 113
VK4R	14 154	VK4W	17 104
VK4KW	4 145	VK4ADT	13 102
VK4EZ	3 141	VK4AIA	15 102
VK4R	13 138	VK4R	15 101
VK4HR	15 139	VK4SG	18 100
VK4ED	6 138	VK4IG	8 100
VK4LN	11 155	VK4JE	7 100
CW			
Call	No. Ctr.	Call	No. Ctr.
VK4RE	6 183	VK4DA	9 113
VK4EL	9 185	VK4LE	17 113
VK4F	10 184	VK4B	23 112
VK4FO	3 183	VK4JE	21 108
VK4CN	1 151	VK4RC	18 107
VK4B	1 150	VK4W	18 107
VK4QL	5 141	VK4YD	17 106
VK4V	4 140	VK4PH	21 105
VK4WB	10 138	VK4J	25 104
VK4HR	13 138	VK4YC	24 103
VK4RU	18 139	VK4JPA	14 101
VK4RF	11 138	VK4NC	19 101
VK4R	13 138	VK4YD	24 101
VK4RK	23 119	VK4OA	25 101
VK4DO	20 117	VK4TRK	33 100
VK4UM	13 116	VK4TL	24 100
VK4M	20 115	VK4JAZ	35 100
VK4CK	30 114		
OPEN			
Call	No. Ctr.	Call	No. Ctr.
VK4RE	6 183	VK4JA	9 114
VK4RU	6 178	VK4ADT	14 113
VK4HR	7 178	VK4RC	21 113
VK4B	2 171	VK4W	26 110
VK4CK	2 167	VK4WT	26 108
VK4KW	13 165	VK4ZC	25 108
VK4DI	2 160	VK4YL	11 106
VK4E	14 158	VK4J	23 105
VK4EL	10 158	VK4JWN	26 105
VK4KS	24 149	VK4VU	18 104
VK4DO	14 140	VK4U	27 104
VK4MC	5 139	VK4EH	17 103
VK4OP	10 137	VK4TB	30 103
VK4ED	22 136	VK4TI	37 103
VK4Z	23 135	VK4BO	26 103
VK4AE	23 133	VK4ED	42 103
VK4ARA	123	VK4TRK	31 102
VK4RN	39 102	VK4Y	35 102
VK4ARM	30 105	VK4JCK	6 100
VK4NS	16 123	VK4TG	39 100
VK4RT	41 121	VK4R	44 100
VK4TL	23 116	VK4JWW	45 100
VK4FL	30 118		

FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

DOINGS ON THE 30 Mc. BAND IN NEW SOUTH WALES

This band has been very quiet with an occasional noisy contact coming in on 29.5 and odd bits of cross-band snatching. Even the Sunday night gang is dwindling with only four or five stations contacting 29.1 after the broadcast. People like the band!

IANX is back after a year's absence and is the furthest south v.h.f. station in the Sydney area. Mike's beam has frozen up, but fortunately points north. He went marine portably during the month but no reports of contacts have come to hand.

IANH has "given away Ham Radio" again but the betting is he'll be back. 29.2 has had the rain in on the modulator and was forced to do a re-build ahead of schedule. Bill likes to watch the pretty lights in the m.v. tubes when he speaks. He has a couple of xtal converts coming along for 6 and 10. 2ANF has acquired a 30 ft. telegraph pole for beam purposes.

The V.F.F. Section put on a show of gear at the March general meeting of the Institute and many fine items of equipment were brought along. A baby 50 Mc. xtal rig—5003, 6003, two 6003 and 1003—demonstrated excellent working conditions. A helical antenna and a cavity resonator resembling a gas meter were other items of note. We did not receive the following type remark that the 603 went so nicely on 2.5 Mc.

On opening between the north of N.S.W. and VK3 occurred on 30th March. No Interstate signals were heard in the Sydney area. We believe someone won the 50 Mc. DX Contest!

NEW SOUTH WALES 144 Mc. ACTIVITY

This is the popular band at the moment and new stations are still appearing there. 2ATF and 2ANF are new calls on the band. 2SZ has a 144 Mc. receiver going at last and is hearing some of the stations reported in these notes during the past year.

2XK has over 3 up 40 ft. in the air with a hefty signal in the city. 2DF now relays the Sunday night broadcasts from 2WI with horizontal polarization. 2XZ has a 100 Mc. receiver. 2ACP at Katumba has a mod. osc. on the band and has worked Sydney. 2K5 is using a three stage m.o.p.s. 90C portable was working under a lightning storm over Ester Bay. 2YH worked through to Newcastle.

ABSTRACTS FROM OVERSEAS MAGAZINES

CONDUCTED BY L. B. FISHER, VK3AUF

"SHORT WAVE NEWS," DECEMBER, 1950

Page 252: "A Low Power Phase Tr."—Description of 6-10 watt two stage RIG-6V8G as a c.s. and 6L6G for the modulator. Simple compact circuit with variable attenuation.

Page 256: "Practical Audio Filters," Part 1.—Full details and description of suitable single section low pass filter for phone and rejecter purposes. Author claims capable of giving a degree of selectivity comparable to that of an expensive crystal filter for quite a small outlay.

"SHORT WAVE NEWS," JANUARY, 1951

Page 262: "100 and 80 Metre V.F.O."—Circuit 63N7 and 6X4 with variable capacitor on 6.3V 100 p.f. pentode, which acts as an untuned buffer amplifier. Full description and suggested layout.

Page 266: "Practical Audio Filters," Part 11.—Further constructional details, winding data, etc., for double section low pass filters.

Page 290: "An AC O-V-2."—A L.F. design for use as a standby receiver. Circuit uses 6X4 as a.f. amplifier; this in turn feeds 6V8 tube. Plug-in coils. Coverage 30 Mc. to 12.5 Mc. Intensity 1.5 w.

R.S.G. "BULLETIN," JANUARY, 1951

Page 248: "A Switched Wideband Exciter," Part I.—General description and design. Practical layout of an up-to-the-minute exciter unit capable of providing 8 useful r.f. outputs in all amateur bands below 3.5 and 30 Mc. Separate inter-stage couplers on 3.5, 7, 14, 21 and 30 Mc. Tubes used: four 6L6 metal tubes and one 6D1. Complete unit with power supply (5740).

Page 250: "A Compact 7 Mc. V.F.O. Unit."—Modified Clapp circuit using a 63N7 Clapp and a 63N7 beam tube driver. Circuit uses 6X4 as a.f. amplifier with a variable condenser in parallel with one of the fixed "tapping" capacitances. Low output, should appear for QRP rig. Midget chassis layout—3 1/2" x 5 1/2".

Halo antennae for mobile and portable work are in favour again, and are also being put up around the town for band testing.

2YM, 2VJ, 2ANF, 2MQ and 3QZ are talking low-frequency transmitters—to keep in touch with the Interstate v.h.f. gang during the winter. 2XK is confined to 144 Mc. as his power transformer for the 30 Mc. final went up.

No signals were heard from VK3 or VK3 during the attempt to work Interstate on this band during mid-March with the small 100w. 2MQ made himself comfortable with automatic sending and a band-watch tuning device and did not go to sleep. 2XK did.

Openings late at night would possibly go unnoticed here as the v.h.f. gang seem to be early to bed—except the night owls, 2ANF and 2XK who are always ready for a yarn near midnight.

VICTORIAN V.F.F. GROUP NOTES AND

131 Mc. NEWS

The next meeting is on 16th May, so make a note to attend and hear Mr. Ashton, of the Weather Bureau, deliver what is bound to be an interesting talk on weather charts, temperature inversions and humidity gradients, etc.

Believe that abnormal weather conditions are responsible to a large extent for the more distant contacts made from time to time, notably on 144 Mc. and if it is possible to know just when these conditions exist, it may also be possible to ensure that full advantage is taken of the opportunities for working DX on these bands. Mr. Ashton has also promised to tell us something about Sporadic E, so that a most interesting evening is assured.

The March meeting, attended by 18 members and visitors, was in general discussion of v.h.f. matters with emphasis on field days. Reports on the March field day were given by various members and it was seen that a total of 30 stations were active on both 144 Mc. and 80 Mc. However, the news of the field day activities was overshadowed by the break-out from VK3 to VK3 on 30th Sunday, 17th March. VK7KB and 2AB, both at Burnie, on the north coast, worked several Melbourne stations, the signal being at excellent strengths. 2AUP made an auspicious entry to 144 Mc. by working to VK7 on his first 2X3. Conditions were not ideal, but the VK3 and VK3 and VK3 has been predicted for three or four nights preceding this date, but

Page 253: "Tracing Parallel Oscillation."—Detailed account of the symptoms noted and tests carried out on a Class C r.f. power amplifier stage using an 63N7. Well worth reading.

Page 254: "Telephone Transmitter Performance."—Simple explanation of the recommendations made at the I.A.R.U. Congress, Paris, 1950. Covers Tx modulation faults and method of measuring r.f. performance, in connection with proposal to limit the a.f. band-width.

"CQ," JANUARY, 1951

Page 11: "Powerful Portable Pin."—An eight tube 25-watt a.m. Tx and an 11 tube double-conversion receiver with 200 Mc. r.f. power supply. Tx circuit: 6C5 c.s. 6A4 doubler, and pair p.p. 6A4 in p.a. final. Mod. pair 6A4s driven by a 6X4 as a.c. mod. 6X4 in 600 ohm line-out. 63N7 r.f. 68A7 mixer, 6C4 c.s. 6B6 i.f. on 1000 Kc. 68B5 second mixer, two 6B6 i.f. amp. on 250 Kc. 6A1S second det. a.v.c. and a.v.c. mod. 6A4G first a.v.c. and a.v.c. mod. 6A4G output. A 6C5 is used as the h.f. tube. Power supply: 12 100 Ma. Selenium rectifier in a.c. circuit. 6A4G first a.v.c. and a.v.c. mod. 6A4G and 150 volts for the Rx. All housed in a standard 8" x 10" x 12" metal carrying case. Designed for 10 and 20 metre bands. Quite a gadget.

Page 16: "A New System for Perfect Keying."—A design for an all-electronic differential keyer. Uses vacuum-tube circuitry and the amplifier circuits and the addition of a 63N7 two-stage d.c. amplifier operating near cut-off conditions and a 6V8 as the oscillator-tweeter tube. Full description and circuit diagram. Will appeal to the c.w. gang.

Page 20: "High Efficiency Leading Coil For Mobile Antennae."—Sound data on mobile antenna. London coil described, suitable for use with "whip" antenna on 75 metres. Of interest for 30 metre mobile work.

Page 30: "Power and Resistance Ratings of Incandescent Lamps."—Table showing the more popular size lamp bulbs determined for all values of power dissipation within their ratings. Useful information for that "dumpty" lad.

no reports of contacts have come to hand. The three bands of news have about activities created considerable discussion, and, as the good conditions to VK7 tended to confirm these predictions, the hope that similar future predictions would be made was widely held.

Our two visitors, 2FF and 2LY, need no introduction for both have made names for themselves by their activities on v.h.f. bands. As they are both likely to remain in VK3 we shall get to know them even better and are looking forward to hearing them on the bands in the near future. From VK3 we are also going to hear another well known v.h.f. Ham, to wit VK35B, ex-VK31. Sid is taking up his old call again and will make yet another station in northern Victoria active on both 20 and 144 Mc. Other stations in this area are 3UJ, 3APF, 3AT, 3ALE and 3H2. All are active on 80 Mc., and some on 144 Mc., but contacts outside the district are scarce. They are also active on the d.c. bands, 3.5 and 7 Mc., and would be pleased to get any calls from others interested in v.h.f. activities.

Some new calls on 144 Mc. within recent weeks: 2AUP, 2KJF, 2H2, 3AUX, 2ZW, but there is a dearth of news about activities on 80 Mc., 288 Mc. and 576 Mc. though I am told that about six stations may be heard on 576 Mc. at various times.

576 Mc. BAND—NEW SOUTH WALES

At the March meeting of the V.F.F. Section details of the April field day contest were discussed and about 14 stations are expected to be out on 15th April. Bonus points are to be given for 576 Mc. contacts but all bands will be in use. The contest will be the building of RL18 rigs and the day should be a good one. At this meeting too, election of officers of the section for the year 1950-51. 2XZ was elected President, 2YM and 2ANF Vice-Presidents, associate Cn. Cronin Secretary, and 2ANF Publicity Officer. This means that this is the last meeting of the 576 Mc. section. The v.h.f. gang will rally round and pass on the dope to John for his monthly notes. I must add that John supplied much of the doings on 144 Mc. during this past year.

MISCELLANEOUS NEWS FROM SOUTH AUS.

The trip to Mt. Barker with 144 Mc. gear by 2GF, 2QR, 2JD, etc., was not a complete success, but that no QSO outside the State took place, but otherwise the trip was enjoyable to all who went. 2BC was worked at Denmark and sundry other contacts. All were amazed at the accuracy of 2GF as a rifle shot. A knife was used to cut the ends of the 222 holes. As the dismantling time came, the knife refused to come out by tugging the rope. I believe this is true, but I am not sure. It may be a trick, but if it. You can prove it by looking at 2JD's knife.

Most activity has swung to 288 Mc. where the following calls have been heard: 2ZB, 2BK, 2VJ, 2MX, 2RO, 2BK, 2KE, 2ST, 2BT, 2RV, 2H2 and 2GF. Equipment is mostly rubberbans and mod. osc. 80L has a xtal converter working and 2QR has promised to supply a xtal controlled signal. With all this activity nightly, little is heard on 80 and 144 Mc.

2BC is coming through on 80 Mc. in the city with good strength these past few weeks. The Darwin beacon is audible and might suggest that from now on it may be best for 2RA to be active and a possible contact with the south. Nil heard from you Ray?

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VKARY	9	...
VK1VJ	9	...
VK1DW	9	...
VK1HR	4	...
VK1P	9	...
VK1RR	9	...
VK1ST	7	...
VK1VJ	11	...
VK1XZ	11	...
VK1SL	11	...
VK1ABC	8	...

CORRECTION

Your attention is drawn to a correction in the article "A Simple Modulation Monitor," page 5, of the April issue. The fourth line in the paragraph under the meter scale drawing should read: "usually indicate asymmetrical modulation," i.e., non-symmetrical.

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

MAY, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first issue of the series was published in the November, 1946, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

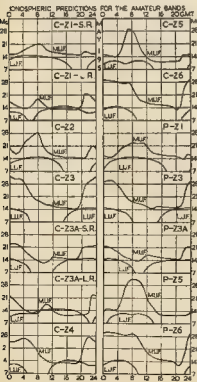
Zone	Region	Terminal
1.	Western Europe	London
2.	Mediterranean	Cairo
3.	N.-West America	San Francisco
3a.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones 22 and 24 for the current month as chart P-22 would be essentially similar to chart P-21, while chart P-24 might be unreliable due to aural activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F₂ region of the ionosphere but above the lowest useful frequency (L.U.F.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart.



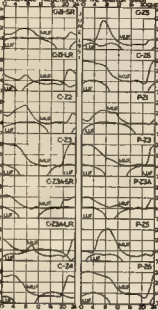
QUZZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Canberra San Francisco circuit would be useful:

1. Were good conditions experienced on 7 Mc. for the period 0900 to 1500 hours G.M.T.?
2. Was the 14 Mc. band workable between 1200 and 1800 hours G.M.T.?
3. Was the 28 Mc. band workable for several hours around midnight G.M.T.?

Answers to the Quizz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the month.

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS



ADDITIONS AND ALTERATIONS TO AMATEUR CALL SIGNS

February and March, 1951

ADDITIONS

- VE—** New South Wales
 2GL—J. A. Ellis, 104 Laurel Ave., Lismore.
 5WO—L. A. Perkins, 31 Stratford St., Cammeray.
 5YG—L. J. McGarrigle, Princes Highway, Epping.
 2AT—W. B. Ash, Bogan St., Nyngan.
 2AHK—A. K. Clark, 200A Great North Rd., Abbotsford.
 2AJY—W. C. H. Bobble, 11 Cove St., Birchgrove.
 2ANE—Eastern Command Signal Squadron Amateur Club, Middle Head, N.S.W.
 2AOT—C. W. Breckan, 15 Richies Rd., Bondi.
 2AGV—J. Bell, Bell's Road, Dundas.
 2APC—E. W. Nowell, 100 Crinan St., Hurstons Park.
 2ASV—H. P. O'Brien, 38 Anglo St., Chastwood.
 2AYH—J. A. Howie, 21 Gould St., North Bondi.
- Victoria**
 3EL—W. T. Lucas, 1102 Howitt St., Wendouree.
 3CI—S. Bryant, P.O. Box 49, Merbein.
 1PX—J. K. McCraith, Serpents Rd., Templestowe.
 3AVP—P. D. Frith, 10 Kinsale Cres., Box Hill North.
 3ACJ—J. P. O'Brien, 16 Tanner Ave., Nth. Melbourne.
 3AGY—G. N. Chapman, 147 Helen St., Morwell.
 3AJB—J. N. Marr, 8 Golden Ave., Chelsea.
 3AGY—L. L. Arbuthnot, Gov. Aerodrome, Mildura.
 3ARV—F. Ward, R.A.A.F. Station, Leveque.
 3ASW—L. A. C. Anderson, R.A.A.F. Station, East Sale, Victoria.

Queensland

- 4BE—A. F. W. Taylor, 3 Lillie Court, Wickham St., Townsville.
 4DL—J. A. Atkinson, Cr Menzies & Western Sts., Wandall, Rockhampton.

4DR—L. G. England, 71 Digger St., Crotas.
 4KE—R. L. Shilton, Henry St., Cinnacurry.

South Australia

- 5DJ—K. V. O'Rourke, 130 Goodwood Road, Adelaide.
 5BK—J. S. H. Price, 11 Mile Transmuting Station, R.A.A.F. Horn.
 5SA—R. de P. L. Milchell, Nightlight, Darwin.
 5WY—J. F. Westley, 22 Glenunga Ave., Glenunga.

Western Australia

- 6RE—R. F. Carville, Kingsmill St., Port Hedland.

Tasmania

- 7GM—A. G. Kirmse, Flat 3, 10 Frederick St., Hobart.
 7SA—C. H. A. Armstrong, South Arm, Tas.

ALTERATION

- VE—** New South Wales
 5BT—Imperial Theatre, Broad St., Eugowra.
 5CT—21 Hall Road, Hornsby.
 5DN—72 Holden St., Ashfield, N.S.W.
 5TX—40 Crags St., Bankstown.
 5UX—14 Gordon St., Eastwood.
 5KK—c/o Inverary House, Kurne Highway, Liverpool.
 2NN—J. John St. Cardiff, N.S.W.
 5PI—J. Forlar St., Stockton.
 2YX—Concorde Road, Strathfield, N.S.W.
 2ZN—Mr J. Brand, 32 Young St., Grenfell (Call Sign allotted in lieu of VK2ADX).
 2AAH—A. Moore, Strathfield.
 2ABR—20 Coddington St., Fairfield.
 2ADF—24 Nullaburra Rd., Caringbah.
 2ABZ—39 Margruts St., Gunnedah.
 2AYD—c/o H. G. Palmer, Crown St., Wollang.
 2AGO—31 Glenview St., Greenwich.
 2AGB—22 Kippie Road, Ryde, N.S.W.
 2AYD—McDonald St., Kynsie, N.S.W.
 2AKO—Wrights Road, Kellyville, N.S.W.
 2APD—"Aramal," Barrenjoey Rd., Palm Beach.
 2APD—22 Bromide St., Broken Hill.

Victoria

- 3DC—31 Walker St., Northcote.
 3DM—Valentin G. Arncliffe, S.E.3.
 3HD—8 Woods Ave., Mordiallo.
 3KS—16 Byron St., Box Hill South.
 3JN—Mopson St., Ascot Vale.
 3OK—22 Teak St., South Caulfield.
 3QR—88 Alexandra St., East St. Kilda.
 3QV—9 James Ave., Highbury.
 3RD—30 Holland St., Blackburn, Vic.
 3WB—119 Hawthorn Road, Caulfield.
 3WZ—Holland Road, Blackburn.
 3XK—16 Byron St., Box Hill South.
 3JZ—"The Guns," Governors Road, Mordiallo.
 3ZT—61 Slaughter Road, Glen Iris.
 3ZF—94 Rutland Rd., Box Hill.
 3AAK—3 Arthur Ave., Brighton Beach.
 3AIG—75 Maribyrnong Rd., Ascot Vale.
 3ACR—11 Greenwood Rd., Boronia.
 3ADH—13 Anderson Rd., Hawthorn East.
 3ADQ—Grovedale.
 3AEE—Lot 94, Acacia St., Glenroy.
 3AE—48 Albion St., Mentone.
 3AKP—16 Rose St., Horeham.
 3ALZ—Bulu Bui.
 3AOB—Grahamville, Vic.
 3ALZ—497 Upper Heidelberg Rd., Heidelberg.
 3ASR—Royal Australian Corps of Signals, Amster Rd., Melbourne c/o Signals Depot, Albert Road, South Melbourne.

Queensland

- 4AD—c/o Radio Station 4QN Clevedon, North Queensland.
 4AG—85 Oxley Drive, New Farm, N.I.
 4CJ—Radio Station 4RK, Greenera.
 4HJ—Somers Road, Greenera.
 4KR—71 Melcomiston St., North Mackay.
 4KD—10 Glen Park St., Mackay North.
 4XJ—Post Alfred, via Bonnah.
 4RX—97 Wagner St., Oonah, Townsville.

South Australia

- 5AK—3 Gertrude St., Lockleys, S.A.
 5FW—41 Coopers St., South Payneham.
 5FX—11 Jordan St., Hryville.
 5ER—27 Chapel St., Magill.
 5PF—Don St., Adelaide, S.A.
 5LO—R.A.A.F. Station, Mollalla.
 5LR—668 Brighton Road, Brighton.
 5PS—10 Victoria Ave., Rose Park, S.A.

Western Australia

- 6FL—34 Wickham St., East Perth, W.A.
 6FW—15 Albany Rd., Bassendean.
 6KE—14 Gleyde St., Mosman Park.
 6TX—c/o Public Works Department, Albany.
 6XJ—c/o Broadcasting Station 6TZ, Waterloo.

Tasmania

- 7RD—Superst Ave., Leach, Launceston.
 7SK—534 Mt. Nelson Rd., Mt. Nelson, Hobart.
 7W1—126 Strickland Ave., Hobart.

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Topical QTHs: KCSWQ, Bob, Cleveland 3054, P.O. San Francisco, Cal., U.S.A.; OAKS, Roberto, Box 24, Tangua Maru, Peru; VTAC, Doug Taylor, Box 34, Kuwiti, Persian Gulf; ZMAK, N. N. Wadding Box 177, Apia, W. Samoa; CSPA, Lee, Taiwan Furnace, requests stations to await his card before replying and then to use the address given for direct QSL. The same applies to KJWAL, Ben, but for the reason the QTH published in the callbook is incomplete.

VKGBB, Arch Barrie, care O.T.C., Rabaul, T.N.G., states that his cards have not yet arrived from the printers, but will definitely QSL.

QTH of ex-VK3A was supplied by VK3AON as VK3ERG, Ron Garrett, care Burns Philp Ltd., Rabaul, T.N.G. VK6GB also supplied it and added that Ron, in addition to being ex-VK3A, is also ex-ZL10H and ZL10G.

VK3YJ wishes to correct an error in these notes in the March issue relative to Henri PARJ being despondent regarding the number of cards earned him by VK Kama. The par should have read PARJ. For the benefit of the VK stations with uneasy consciences his full QTH is FARRJ, Henri Grossin, 18 Rue de la Paix, La Redoute, Ageron.

On source card sent to VK3YP, ZMAK gives a little dope on his layout. He is at Apia for three but 24 years of that term has expired. Knitter used is a commercial food feeding a Mercator, ground ant. is temporarily off air awaiting replacement of a blown choke which blew up under the strain of heavy traffic during a recent air fatality there. States will QRX for any VK calls.

The S.S. is having a blitz on non-members by not handling their cards. The S.S.A. recently sent a questionnaire to most societies asking for info on the attitude adopted with cards for non-members. They also state that the alphabetical allotments to Swedish Amateurs are as follows: With SM prefix, AA to ZZ, AAA to AZZ, BA to BZZ, and with SL prefix, AA to ZZ. They point out that any CA or EZZ is definitely unlicensed. In pursuance of their handling of "unlicensed or maybe 'lost' cards they inadvertently returned some with an incorrect rubber stamp endorsement, which read "Sorry OM. This station not registered in B.S. Unlicensed or maybe 'mistake from log' etc." This in some cases indicated that the station to whom the card was addressed was unlicensed. What they intended to convey was

that the addressee station was not a member of the S.S.A. They apologise and in future will endorse cards for non-members with the legend "Not a member of S.S.A."

Additional spot press QTHs from old friend Eric BEHUS196 —LINU, Box 33, Trieste (requests all QSLs direct), FRKJAJ, Box 193, Noumea, New Caledonia, newly licensed; VANCZ, P.O. Moshi, Tanganyika; LBAUB is LAUBB aboard ship QSL via N.H.R.L. or R.S.G.B., DADAIA is in Dresden, Soviet Zone, QSL via D.A.R.C. Apropos VK1VU and par in these notes in March issue, Eric writes "VK1VU told me just a year ago that his log had been left behind and would be brought back this year." As the Labuan has just returned from Heard Island, maybe VK1VU now has his log and is busy on the job? If so this will make cheerful reading for some hundreds of DX stations. Can brother-in-law, VK3MM, lift the "iron curtain?" Jack Elliott, ZL13SC mentioned in these notes in the April issue, is due to arrive in Melbourne on 18th April. Jack will spend some time in VK6 prior to his return to ZL on 2nd May. He will endeavour to meet as many of the gang as time and circumstances permit.

NEW SOUTH WALES

EAST SYDNEY AND SOUTHERN SUBURBS
ZAG's massive rig — an 80T feat running at a maximum of 40 watts and the whole caboodle fitted into an old Army dixie tin lid! Little encouragement comes locally for our s.s.a.c. expenses, such as ZCP and ZAC. However, the cult is surely spreading, for 5BC now holds regular conch with them on 30. Owing to an impasse in the way of no correspondent for the time being for the Southern Sydney Suburbs, this scribble will include that area in these notes, and can only say that in order to make a job of things, it is up to the gang there to supply some items of news, "scandal," or gen of any kind.

The N.S.W. Division v.h.f. section took charge of the lecture portion of the Division's general meeting on 10th March and produced natty creations in the v.h.f. experimental class. We received and transmitted of all kinds, taking in 30, 144 and 385 Mc and a working demonstration of cross-city working was given on 80 Mc. This enthusiasm of the v.h.f. section boys is infectious, and I feel that after that meeting, there will be an increase in recruits for v.h.f. in and around Sydney.

A prominent worker on v.h.f.s in the South is ZABR who, however, may be heard on 40 phone. ZPJ has been heard from the microphone at ZAYE. Lacking none of his interest, Jack has been silent for some time owing to the necessity for other things taking priority. Credit is due to Vaughan Wilson ZWV of Maroubra who has for some time done the weekly Divisional broadcasts each Sunday. It takes a great deal of spawdwork to collate and put over the rapidly growing news interest of the Division, week by week, in addition to earning one's daily bread. Credit is due also to these country and local Amateurs who get busy for an hour or two on Sunday mornings and help by sending in spot press news.

There is quite a crowd to be heard at times on 80 and the ZLs are coming in very well. ZASE had a long yarn on the band with ZLAGE and VK4PT from 02.30 yes, no error! until 04.00. Ben explains it away by saying that Bert couldn't sleep so wanted a greater — he is a sick man and a cut case for many years. ZAG paid a recent visit to ZASE and was mightily intrigued at the "Rogues' Gallery," comprised of groups of photos of 60 or so Amateurs on the wall, replete with XYLs, etc. The week-end before Easter saw kind of miniature hamfest at ZASR's shack 31K and his wife spent the Saturday and Sunday there, dropping in on their other home — honeydew at Kalmorah. 3WQ called in also for a couple of hours, and on the Sunday afternoon, ZAGA and his family called to meet the newly wed.

ETR is busily getting his 144 Mc. rig into action, but pops on to 40 now and then. ZNO seems to be a victim of blackouts just when keeping akeds. ZNO has also run into a spot of h.c.f. bother when using 40 phone. Next time you hear him on the band, he is likely to be using a new n.b.f.m. exciter outfit as the lesser of two evils.

NORTH COAST AND TABLELANDS

Zone Officer ZKO is on holidays enjoying a well earned rest after all his work for the Convention, will be doing a round trip out west and back to Sydney, visiting ZVC, ZACU, ZWB on the way.

HUNTER BRANCH

The March meeting of the Hunter Branch was honoured by a visit from the State President, Jim Corbin, the object of which was to give the Branch members the opportunity of discussing matters to be submitted by N.S.W. Division at the Federal Convention.

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practice in receiver tuning on 3.5 Mc. There is no doubt that the average h.c.l. blames the Ham first, and checks up afterwards. HIL has been accused of c.w. interference on the local b.e. station, but as Allan has not used the key for six months it makes it a little hard. JDP has acquired a brand rotary beam for 144, true it was meant for a ship and weighs a ton, but a little thing like that will not stop him, he has also taken over JAKP's 86 ft. jump of tree, so Deep Lead sky-line should be changing considerably in the future. SARL has been heard a number of times of late on 3.5 with a good signal, Bob is still using the modified F8B. JCU is off again on his many travels and is not heard very much, however Gordon certainly makes his presence felt when he does switch on SARL is now back at work since his long break and is going along quietly.

EASTERN ZONE

We have decided to have a portable field week-end on Saturday and Sunday, 6th and 7th May. Full details will have been given per JWI before you read this, so be in it.

JVG installed in his new house. SDO is renovating his establishment—Ham Radio is out for a while. JAFG and JAFK among the missing. SGZ on holidays at the Lakes. SYL and JTR portable at Easter. Sid, ex-JCI, now at Merbein using old call SCJ. TUV is a regular on the Sunday hook-up—SHK 2UW. JDI another holiday maker, I don't know how they do it!

SPR has a couple of dents in his jalopy—he is now allergic to motor cycles. The bikes are alright, Ron, it's the galahs who ride 'em! SWK playing snow men now, better oil up the relay for the winter. BILL JABP is at school, learning to be an officer. Don't forget Dud, that we knew you when. I JAMP taking it easy. BSS still the champion—casher, I mean. JAKK feeling the 30 mhz DX urge—anybody got an HRO to give away?

ORIELONG AMATEUR RADIO CLUB

On 16th March the above club organised for its members a field day in which a transmitter operated by JAKE, JSY and SWT under the club's call, SATL, was hidden 20 miles away. So well was the Tx hidden that JAKE and JSY went for a walk and were lost for 4 hours. Members failed to locate it in the specified time and the time period was extended. Two parties arrived in the vicinity of the Tx and decided to combine; they were John McConnell, BSW and Peter Perkins.

After the hunt, a picnic dinner was enjoyed and the boys set off to hide again. This time it was located by most parties. The first of these being Dick Sughway, 2ABK.

The next meeting was attended by a large gathering of members who heard a lecture on "Modulation" by Peter Perkins. Another field night was arranged for the following meeting and this time the limit was five miles from the C.P.O. The honour went to JAKE and Peter Perkins who located the Tx in 25 minutes.

FAR NORTH WESTERN ZONE

We must apologise for the lack of notes from this zone over the past few months. However, we will endeavour to forward notes regularly in the future. Since our last notes the main activity has been carried out by JTI who has been keeping things going on 40. JADG has been rather inactive over the harvest season, but is now on 30 metres and manages to work a few W, JAA, etc.; Noel has a fine steel tower erected and is busy working out a beam to mount on top. The Ouyen gang haven't been heard in Mildura for a few weeks but I gather that SPC has been rather busy with bowls. JAPC comes through with a good sig from his TAID. Jim Power, who recently received his ticket, hopes to have a signal on the band in the very near future.

Old timer Arch Newberry, from Red Cliffs, has applied for his call and will be mainly interested in v.h.f. activities. Ex-SCJ has taken up residence in the district and seems to have stirred up interest in 2 metres. All the gang are now talking about this band and we have hopes of getting some gear operating on this band. SSN who operated portable from here for a month or so last year is still with us but very inactive. SMP is very busy chasing material for housing and has not been heard for months. We propose to have a get-together of the gang in the very near future. From what I hear we should have a good muster. SGZ returned from Melbourne with a few stray bits and pieces for 2 metre gear and has hopes of getting something working on that band.

QUEENSLAND

As most of you are aware, the Queensland Division recently held its 19th Annual Dinner. Realising that quite a number of country members were unable to get along, it is thought that

rather than personal notes, we should this month present a copy of the then President's address.

Unfortunately no notes have been received from any of the country zone managers so it would appear that your Sub-Editor will have to make other arrangements re the gathering of country news, or perhaps I should not have accepted re-election if I am not prepared to take news over the air as at least one of the zone managers wanted and apparently expects me to do so I have not had one set of notes from him since I have been doing the job. I am hereby asking for several reliable news hounds to offer their services. I hope GKG is not ill because, to date, he has been the only zone manager worthy of the name.

PRESIDENT'S REPORT

Getting back to the Dinner, the President, John Puckles, proposed the toast to the King and continued: "Gentlemen, I am happy to be in the position of welcoming guests, Mr. Conry, the Superintendent of Wireless; Mr. Paul Andrews, the Assistant Superintendent; Mr. Olipa, of the C.S.I.R.O.; and Mr. Flete, of the Institute of Radio Engineers, as well as our visitors and you, my fellow members, to this our 19th Annual Dinner."

"This is, I believe, the occasion on which the President is called upon to exonerate himself and his fellow Councillors for their actions, or lack thereof, during the preceding 18 months. However, at this time I am pleased to be able to report that progress has been quite extensive particularly from a financial point of view and it is, I believe, the first occasion in the history of the Division that we have a healthy bank balance. The precise amount will be shown in the Treasurer's report, but I can assure you that as soon as our good friend Russ Roberts can arrange to have a portion of King George Square fenced off, we will be on the position to at least pour in a solid foundation for a permanent H.Q. of our very own."

"Mr. Roberts has already offered us a piece of land ideally suited as far as the erection of a shack and antenna system is concerned, but unfortunately so far out of the city area that we would be faced with the added expense of a meeting place more accessible to all. So Council, hoping it would not be accused of looking a gift horse in the mouth, reluctantly decided to accept his offer. However, we are hopeful of something eventuating."

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SOUTH AUSTRALIA

"Our student class got away to a fine start under the capable direction of Mr. Frank Lewis. The ranks were closed when 36 students threatened to overflow the classroom, but a number of them dropped out as the program became more progressed. ... I believe—no now sincerely engaged in study."

"I have been advised by those remaining students that the dropping away of the class has not been in any way due to dissatisfaction with the tuition. They go further and assure me that the program was exactly as they desired and if the student is capable of absorbing the work he could not fail to pass for his ticket. So apparently the majority of aspirants respect what they are given. ... It is unfortunate that a number of teen students probably had to be turned away to make room for the emergency students. ... to me that if the high standard of tuition could be continued, some form of stricter screening could be made of applicants."

"For support has, as usual, been given to the various contests during the year. The R.D. Contest had fair support but much better will be needed if ever this State is to win. The Field was almost empty. ... as only four logs were sent in—all from the city. It would seem to me an ideal opportunity for the country members to attempt to make a try out their portable gear. The City-Country Contest was a fiasco although I think conditions could make a large share of the blame on that occasion."

"Rather more than 30 new members have enrolled during the past 15 months, exceeding the total of the previous year. ... It is not possible to ascertain, but which information I promise will be available in respect to the forthcoming 12 months. ... totals 314, comprising 113 city, and 103 country."

"The deaths of three members has been a blow to the Institute. The loss of Bob Campbell has left a gap in the ranks which will be missed. ... cheerful personality. We deeply regret also the loss of Eric Kelly (VK6ER) who was an active participant in the Sunday morning hook-up, and the young Collins who was a regular student member."

"At this stage I would like to sincerely thank my fellow members for the support they have had during my term of office. Each one has applied himself diligently to his job and although some have had to work harder due to the nature of the work, the concerted efforts have resulted in a smoothly working organization. ... Our Treasurer, Jack Farrell (4WJ) presiding over the 47th AGM, has been elected as the Secretary of the year since the departure of 47th, has certainly earned him a rest as President. ... rather more than his share of the burdens in handling the disposal gear, the Station Manager, the technical directorship and the emergency work. ... It is anticipated more when a replacement is required and while the technical directorship is in the capable hands of the Secretary (4WJ) the management is still up in the air, although a number of suggestions are being considered by Council."

"I am not going to waste time on that hardy nature which is rapidly becoming a noxious weed—the lack of enthusiasm when it comes to taking part in the more concerted efforts. So far there are fortunately sufficient volunteers and if that should change I may be forced to vacate that position as an up to the minute and occupy one of the sprung leather ones which you all seem to prefer. However, there is one way in which you could all help and that is to forward the items of interest to the Sub-Editor or the Station Manager. After all, they are not mind readers and we do not expect them to be. ... at least do this small service for the Institute."

"The trophies given away were kindly donated by Chandlers, Trackspans and Mr. Joe Foster, and are much appreciated. ... the Institute is held by the trade in general. Our sincere thanks to these organisations for their generosity."

"In conclusion, gentlemen, I am grateful to all of you for the patience you have shown during my term of office and hope during the year to make it a year in which you will know a lot of you much better. I thank you."

CLARE'S CORNER

The Brisbane DX Club is becoming quite popular of late, more and more DX stations are making the question, 'Are you a member of the Brisbane DX Club?' ... on the air again after a period of absence. ... is doing quite well with his nine watts and a three metre beam. ... gratulations to 4WJ on his two f.b. Sunday morning broadcasts from 4WL."

"If you are in the mood to know anything about 313, ... 47PZ, 47W has been on the air testing out his new low power portable rig. Anybody knowing the whereabouts of a JAB, please contact 42B."

The monthly general meeting of the VK3 Division was held on the 13th March at the Adelaide Amateur Radio Club. ... broadcasting station, and considering the business of the evening was the discussion of the Agenda for the forthcoming Convention, the attendance and the rapid attention given by those present was very heartening to the members of the Council. ... who had given much thought to the recommendations of the Council. ... various items were taken in turn, and much discussion took place on some of the more contentious items. After a smoke-out of fifteen minutes the auctioneer got up to sell the portable Charlie Partridge was taken over by that King of Auctioneers, or should I say "Tendermaster" William ... that Don Whitburn couldn't sell just wouldn't matter."

One point was definitely settled at this meeting and that was the matter of the lecture being held first, or whether the business should take precedence. It was unanimously decided that the present system of holding the lectures first be continued, has been in practice post-war."

To those of you who may have persevered with these notes so far, it may or may not have been evident that I am a little bit of a snitch, suffice it to say that vengeance is sweet and I have now the opportunity of getting even with my arch adversary, Penman. For years now I have had to read and write to him, and I have learned from the truth, the opportunity is here and I take it in both hands. To those of you interested in the VK3 notes, I have a surprise for you. ... sort of man is this fellow who writes the VK3 notes? I reply—3 feet 7 inches tall, fair complexion, dark hair, a very long, thin, straight line, no lattoo marks, no previous criminal record and a heck of a sense of humour; radio engineer by profession and employed by the ... well ... B. ... I have to admit he's a nice guy and one with a natural flair for writing notes such as these. ... does red pencil him at times. I did hear he got authority that brother-in-law Lance once took him all over him in a certain eating house. Upon being approached by the police, he said, 'Go away, the last time I gave you five bob you never took it back.' ... "Kankacks" with much bluster."

The ballot for the new Council for the forthcoming year, for the wet and dry, and the Christmas Social has gone to the wind. It is now for them to decide on these two issues. Our Federal Councillor Gordon Bowen and Observer John ... after a strenuous time at the Easter Convention. They have much to report and their story will make interesting reading in the next meeting. ... BSY heard on 20 with excellent phone contact from the Type 3. The Pirie gang are going well according to the latest report received from their HQ. ... BSY working 4WJ on 20. ... BSM. BOD was seen crawling around the top of the tower after giving the beam a spring cleaning. ... his comments that the ... mer were "un-personable" if you know what I mean. SWO still putting through a fine signal on 40 with a fat that the boys have been given my mouth water the whole day when he suggested a cold one, he's in the place where they shill them out too. ... SWM made a good impression. ... home again after a spell in W.A.; a speedy recovery old son. ... BLO from Maitland heard on 40 with a nice signal."

Two resignations from such old timers as SLL who complains that things are not what they used to be (perhaps they are, Luke), it could be that they are not what they used to be. I haven't a clue to the reason behind this one unless it is that Bill couldn't just get the results of his own work. ... VK3 did. "Dead Eye Dick" Laidler has gone holidaying to Brisbane way. ... still doing a grand job on the Institute broadcasts for this Division, reported to be being around with "The Thing" which I hear is a gadget for sending lots of dits and dahs by a flick of the wrist. ... From the "Mount" comes news of SFD who is still off the air owing to lack of power at the local station. ... hours John is making a tape recorder in his spare time. ... radio gear of the wrecked freighter, "Corio", has been power on 20 metres and is being used to modulate for a type of suppressed carrier screen modulation or something. ... has a night shift worked with 4WJ on 20 through; now using 30 watts to an 813 and modulating it with 80W in Class B. ... and a three metre beam. ... at present. ... BSW now has the a.c. installed and is feverishly making up transformers and power supplies for all his gear. ... contact with SCL on 2 metres, and still home building; Claude is one of the bestest men I know, too bad he doesn't live near the city or

he would be upped into the many and varied jobs that are always going on in the Institute. ... manages a few contacts on 40 and 3 metres, strained his ears listening on 144 Mc. during the last week. ... a little while ago a ...

SRK, the "Certificate Man", is again on the trail of a new certificate, now chasing one for worked all South America or something; George ... a little while ago a ... that man does do, now has lots of financial members posted to him, so don't expect cards from him. ... is followed by ... reported to be on the way to the West in his car. ... SMZ who used to be SMK in the old days, ... been working lots of Ws on 40 Mc. ... SMD still putting a nice signal through on 20 phone and often heard working 2XN who was formerly ... at the power station the other day when the darned thing decided to refuse to go; who reports the baby thing John, ... has transferred his affections to the gentleman with the Ford V Eight at Rose Park; if it's any help to you I'll clean the car, if you will call in and pick the top up. ... and general meeting nights. ... BJD reported to be looking for the two metre band; if anybody could put the two metre band in, ... would worry and leave him bright enough to tackle the affairs of the Council. ... Jim ... BJD, passed through the city recently on his way back from Western Australia. Many of the old timers will remember Jim who tells me that he is in the ... with VK3s—his call is VK3AKU and a welcome is extended to visiting South Aussies should they ... BSM heard of a ... series of radio telephony; hopes to have a modulator that will work very soon. ... BGD not work on much these days."

... to ... of the week-end spent by the V.E.F. Group at Mt. Barker. ... Reg Galle, Jack Coulter, Clarity Bright and Joe ... VKAALLI ... a very cold night. With the amount of a.c. that was used to light up the Mountain like day, ... the thought of a radiator as a handy way to dissipate the heat. ... was seen searching through the coils for the chips that he inadvertently dropped. Somebody ... Max fairly rocked the crowd with a magnificent piece of marksmanship. He clipped a piece ... become stuck in a tree, with a shot from a 25 rifle. A suggestion was made that the V.E.F. ... challenge ... to a shooting match. ... Wait till the rubber ... back from Brisbane, we will take that one up. ... SAM was heard touring the suburbs at Easter ... another visitor to VK3 was that menace from ... he could puff as hard as he could blow he would have puffed himself into ... about one saved all his life. ... Bill. SFW not heard on as much these days, don't suppose you have received any more of his ... "Pansy" he didn't ... to get this one back on you; this makes it even for the "Matron of the Hospital Incident."

WESTERN AUSTRALIA

The March and Annual General Meetings were held on Tuesday the 20th before a very good roll-up of members, no less than 54 being present. ... the business of the evening was the meeting, and after the usual preliminaries, discussion took well under way on the two notices of motion to amend the constitution, as published ... notices of motion were lost, in the first instance on the voting, and in the second because the required majority was not reached. ... Commendable interest was taken by the great majority of members in these notices of motion. ... number of country members ... voted by proxy. ... the various speakers and the Chairman at the meeting that the personal angle was kept practically clear out of the discussion. ... The March meeting had to be adjourned in order that the business of the Annual General Meeting could be dealt with. ... for the ballot for the 1961 Council made known. Reports were heard from the various officers and the Treasurer tabled his balance sheet, together with a summary of the year's activities, and the possibility of an increase in subs in the not too distant future. ... the year's activities, thanked all Council members for their support during the past year, and also all VK3 members for their active in-

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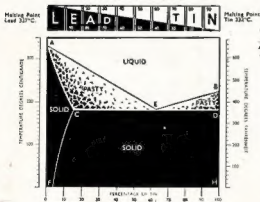


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